

Claims

- [c1] 1. A method for fabricating a thin film transistor (TFT), comprising:
 - forming a gate on a substrate, the gate comprising a MoNb alloy;
 - forming an insulating layer over the substrate covering the gate;
 - forming a channel layer on the insulating layer above the gate; and
 - forming a source/drain on the channel layer.
- [c2] 2. The method of claim 1, wherein an amount of niobium in the MoNb alloy is less than 10%.
- [c3] 3. The method of claim 1, wherein the gate comprises a composite layer of MoNb/AlNd or MoNb/AlNd/MoNb.
- [c4] 4. The method of claim 3, wherein an amount of niobium in the MoNb alloy is less than 10%.
- [c5] 5. The method of claim 1, wherein the source/drain comprises a single MoNb layer or a composite layer of MoNb/AlNd or MoNb/AlNd/MoNb.
- [c6] 6. The method of claim 5, wherein an amount of niobium

in the MoNb alloy is less than 10%.

- [c7] 7. A method for fabricating a thin film transistor (TFT), comprising:
 - forming a gate on a substrate;
 - forming an insulating layer over the substrate covering the gate;
 - forming a channel layer on the insulating layer above the gate; and
 - forming a source/drain on the channel layer, the source/drain comprising a MoNb alloy.
- [c8] 8. The method of claim 7, wherein an amount of niobium in the MoNb alloy is less than 10%.
- [c9] 9. The method of claim 7, wherein the source/drain comprises a composite layer of MoNb/AlNd or MoNb/AlNd/MoNb.
- [c10] 10. The method of claim 9, wherein an amount of niobium in the MoNb alloy is less than 10%.
- [c11] 11. A thin film transistor (TFT), comprising:
 - a gate on a substrate, the gate comprising a MoNb alloy;
 - an insulating layer over the substrate covering the gate;
 - a channel layer on the insulating layer above the gate; and
 - a source/drain on the channel layer.

- [c12] 12. The TFT of claim 11, wherein an amount of niobium in the MoNb alloy is less than 10%.
- [c13] 13. The TFT of claim 11, wherein the gate comprises a composite layer of MoNb/AlNd or MoNb/AlNd/MoNb.
- [c14] 14. The TFT of claim 13, wherein an amount of niobium in the MoNb alloy is less than 10%.
- [c15] 15. The TFT of claim 11, wherein the source/drain comprises a single MoNb layer or a composite layer of MoNb/AlNd or MoNb/AlNd/MoNb.
- [c16] 16. The TFT of claim 15, wherein an amount of niobium in the MoNb alloy is less than 10%.
- [c17] 17. A thin film transistor (TFT), comprising:
 - a gate on a substrate;
 - an insulating layer over the substrate covering the gate;
 - a channel layer on the insulating layer above the gate;
 - and
 - a source/drain on the channel layer, the source/drain comprising a MoNb alloy.
- [c18] 18. The method of claim 17, wherein an amount of niobium in the MoNb alloy is less than 10%.
- [c19] 19. The method of claim 17, wherein the source/drain

comprises a composite layer of MoNb/AlNd or MoNb/AlNd/MoNb.

[c20] 20. The method of claim 19, wherein an amount of niobium in the MoNb alloy is less than 10%.